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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/016,941

**Applicant(s)**

ERRICO ET AL.

**Examiner**

NAMITHA PILLAI

**Art Unit**

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 9-34, 36, 37, 39-47, 49-56 and 58-87 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-34, 36, 37, 39-47, 49-56 and 58-87 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. The Examiner acknowledges Applicant's submission on 4/28/10 including amendments to claim 1, 29 and 56. All pending claims have been rejected where the previous rejection has been maintained.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 9-20, 22-34, 36, 37, 39-47, 49-56, 58-68 and 70-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,219,837 B1 (Yeo et al), herein referred to as Yeo, U. S. Patent No. 6,678,635 (Tovinkere et al), herein referred to as Tovinkere, U. S. Patent No. 5,717,879 (Moran et al.), herein referred to as Moran and U. S. Patent No. 6,880,171 B1 (Ahmad et al.), herein referred to as Ahmad.

Referring to claim 1, Yeo discloses a method of presenting information regarding a video comprising a plurality of frames (column 1, lines 6-10). Yeo discloses summarizing a video, the summarization comprising a plurality of segments of the video (column 1, lines 6-10). Yeo discloses that each of the segments includes a plurality of sequential frames of the video (Figure 1 and column 1, lines 6-10). The segments represent sequential frames of past and further video data associated with the currently playing video. Yeo discloses displaying the summarization in a first portion of a display

(Figure 1). Yeo discloses sequentially indicating the relative location of each of the plurality of segments within the summarization relative to at least one other of the segments, each of the plurality of segments represented by a bounded spatial region (Figure 7 and column 5, lines 13-21). The bounded region that is defined indicates video data as frames. This bounded region indicates the temporal relationship of the frames of the video with regions that visually indicate differences in the video data. Yeo discloses receiving from the user, by interaction the graphical user interface, a selection of one of the plurality of segments (column 1, lines 48-52). Yeo discloses in response to the selection, presenting a selected one of the plurality of segments and not presenting at least one other of the plurality of segments (column 1, lines 48-57). Selecting one segment results in the presentation of that video segment as opposed to another video segment. Yeo discloses that the bounded spatial region having a respective size based on the number of sequential frames included in the respective segment represented by the bounded spatial region (Figure 7). Yeo does not disclose an event characterized by a semantic event that includes a sports play. Tovinkere discloses detecting an event in a video characterized by a semantic event that includes a sports play (column 7, lines 40-43). It would have been obvious to one skilled in the art at the time of the invention to learn from Tovinkere event characterized by a semantic event that includes a sports play. Tovinkere discloses that identifying the semantic event of a sports play ensures that the user has access to the most desired data within large amounts of video data. This provides motivation for Tovinkere to learn from Yeo. Therefore one skilled in the art at the time of the invention would have been

motivated to learn from Tovinkere event characterized by a semantic event that includes a sports play.

Yeo and Tovinkere do not disclose displaying a graphical user interface on a second portion of the display with a plurality of segments. Moran discloses a graphical user interface with a plurality of segments (Figure 11). The plurality of segments has different visual indications that disclose relative location for events within a video (Figure 11). These pluralities of segments are displayed with different visual indications that are associated with distinct characterizations. These characterizations are each individually distinguishable when their associated visual indications graphically overlap (Figure 11). For example when the graphical indications display that Adam and Betty are speaking at the same time in the audio data, the visual indications overlap but are distinctly displayed. It would have been obvious to one skilled in the art at the time of the invention to learn from Moran displaying a graphical user interface on a second portion of the display with a plurality of segments. Yeo discloses a timeline structure with a plurality of segments that visually indicate the different within the segments of the video data. The displaying of this timeline structure would allow the user to determine different types of events with the video data and access these events more easily and efficiently. This provides motivation for Yeo and Tovinkere to learn from Moran. Therefore one skilled in the art at the time of the invention would have been motivated to learn from Moran displaying a graphical user interface on a second portion of the display with a plurality of segments.

Yeo, Tovinkere and Moran do not disclose displaying to a user the relative location for a first semantic characterization of a sports play in the video using a first visual indication and displaying the relative location for a second semantic characterization of the sports play in the video using a second visual indication different from the from the first visual indication. Ahmad discloses displaying to a user the relative location for a first semantic characterization of a sports play in the video using a first visual indication and displaying the relative location for a second semantic characterization of the sports play in the video using a second visual indication different from the from the first visual indication (Figure 2B, column 3, lines 13-16 and lines 28-35). It would have been obvious to one skilled in the art at the time of the invention to learn from Ahmad displaying to a user the relative location for a first semantic characterization of a sports play in the video using a first visual indication and displaying the relative location for a second semantic characterization of the sports play in the video using a second visual indication different from the from the first visual indication. Ahmad discloses that providing the visual indications of the video data allows for the user to quickly recognize and access important context data of the video (column 1, lines 39-43). This provides motivation for Yeo, Tovinkere and Moran to learn from Ahmad. One skilled in the art at the time of the invention would have been motivated to learn from Ahmad displaying to a user the relative location for a first semantic characterization of a sports play in the video using a first visual indication and displaying the relative location for a second semantic characterization of the sports play in the video using a second visual indication different from the from the first visual indication.

Referring to claim 2, Yeo and Tovinkere disclose that the first and second semantic characterizations of a sports play temporally overlap in the summarization (Tovinkere, column 5, lines 50-60).

Referring to claim 3, Yeo discloses that the graphical user interface includes a generally rectangular region where each of the plurality of segments is indicated within the generally rectangular region (Figure 1).

Referring to claim 4, Yeo discloses that the size of each of the plurality of segments is indicated in a manner such that the plurality of segments with a greater number of frames are larger than the plurality of segments with a lesser number of frames (Figure 7).

Referring to claim 5, Yeo discloses that the size of the regions between each of the plurality of segments is indicated in a manner such that the regions between with a greater number of frames are larger than the plurality of segments with a lesser number of frames (Figure 7).

Referring to claim 6, Yeo discloses that the user selects one of the plurality of segments by interacting with the graphical user interface at a point within the displayed bounded spatial region associated with the selected one of the plurality of segments (Figure 1 and column 1, lines 48-52), where the user selects the bounded region with the summary frames.

Referring to claim 7, Yeo discloses that presentation of a selected one of the plurality of segments begins at the first frame of the segment irrespective of which point within the displayed bounded spatial region that the user interacted with (Figure 1 and

column 1, lines 48-52), with the user selecting a bounded region resulting in playing all the frames within this segment starting with the first frame to update the user on the video data.

Referring to claim 9, Yeo discloses that presentation of a selected one of the plurality of segments begins at a frame of the segment temporally corresponding to the point within the displayed bounded spatial region that the user interacted with (Figure 1 and column 1, lines 48-52), where the video associated with selected segment is played and the beginning frame of this selected segment is played. This segment has a temporal position which conveys desired information to update the user's viewing.

Referring to claim 10, Yeo discloses including a selector by which the user may alternatively select a chosen one of presentation of a selected one of the plurality of segments beginning at the first frame of the segment irrespective of which point within the displayed bounded spatial region that the user interacted with and presentation of a selected one of the plurality of segments beginning at a frame of the segment temporally corresponding to the point within the displayed bounded spatial region that the user interacted with (Figure 1 and column 1, lines 48-52).

Referring to claim 11, Yeo, Tovinkere and Moran discloses claim 7 including a user-moveable scroll bar on said graphical user interface indicating the relative temporal location of currently-presented frames of said summary, wherein the user selects one of the plurality of segments by moving the scroll bar over the selected one of the plurality of segments, and where the scroll bar snaps to the beginning of the selected one of the plurality of segments (Moran, Figure 11).



Referring to claims 12 and 39, Yeo, Tovinkere and Moran disclose at least two of the plurality of segments are temporally overlapping (Moran, Figure 11).

Referring to claims 13 and 40, Yeo, Tovinkere and Moran disclose that the temporally overlapping segments are visually indicated in a manner such that each of the overlapping segments is independently identifiable (Moran, Figure 11).

Referring to claim 14, Yeo discloses that a user selects a portion of the video not included within the plurality of segments, wherein in response thereto, the system presents one of the pluralities of segments (column 1, line 65-column 2, line 1). In response to a user selecting to view a shot, a past segment that is associated with this selected shot is played to the user to ensure that the user knows the details of the video.

Referring to claim 15, Yeo discloses that one of the plurality of segments is the segment most temporally adjacent to the portion of the video (column 1, lines 53-57).

Referring to claim 16, Yeo discloses that one of the plurality of segments is the next temporally related segment (column 2, lines 20-22).

Referring to claim 17, Yeo discloses one of the plurality of segments is the previous temporally related segment (column 1, lines 53-57).

Referring to claim 18, Yeo discloses that a user selects a portion of the video included within the plurality of segments, wherein in response thereto, the system presents the portion of the video from the start thereof (Figure 1 and column 1, lines 48-52).

Referring to claim 19, Yeo discloses that a user selects a portion of the video not included within the plurality of segments, wherein in response thereto, the system presents one of the plurality of segments, and wherein the user selects a portion of the video included within the plurality of segments, wherein in response thereto, the system presents the portion of the video within the plurality of segments (Figure 1, column 1, lines 48-52 and column 1, line 65-column 2, line 1).

Referring to claim 20, Yeo discloses that a user selects a portion of the video not included within the plurality of segments, wherein in response thereto, the system presents one of the plurality of segments, and wherein the user selects a portion of the video included within the plurality of segments, wherein in response thereto, the system presents the portion of the video within the plurality of segments starting from the beginning thereof (Figure 1, column 1, lines 48-52 and column 1, line 65-column 2, line 1).

Referring to claim 22, Yeo, Tovinkere and Moran disclose that the temporal information is hierarchical and is displayed in such a manner to retain a portion of its hierarchical structure (Moran, Figure 11).

Referring to claim 23, Yeo, Tovinkere and Moran disclose that temporal information relates to overlapping time periods and the temporal information is displayed in such a manner to maintain the differentiation of the overlapping time periods (Moran, Figure 11).

Referring to claim 24, Yeo, Tovinkere and Moran disclose that temporal information is displayed within a time line, wherein the temporal information is presented

in a plurality of layers in a direction perpendicular to the length of the time line (Moran, Figure 11).

Referring to claim 25, Yeo, Tovinkere and Moran disclose that the temporal information is displayed within a time line, wherein textual information is included within the time line (Moran, Figure 13).

Referring to claim 26, Yeo, Tovinkere and Moran disclose that the temporal information is displayed within a time line, wherein additional textual information is displayed upon selecting a portion of the time line (Moran, Figure 13).

Referring to claim 27, Yeo, Tovinkere and Moran disclose that the temporal information is displayed together with a time line, wherein additional textual information is displayed together with selecting a portion of the time line (Moran, Figure 13).

Referring to claim 28, Yeo, Tovinkere and Moran disclose that the temporal information is displayed within a time line, wherein additional audio annotation is presented upon presenting a portion of the time line (Moran, column 22, lines 1-5).

Referring to claim 29, Yeo discloses a method of presenting information regarding a video comprising a plurality of frames (column 1, lines 6-10). Yeo discloses identifying a plurality of different segments of the video, where each of the segments includes a plurality of frames of the video (Figure 1 and column 1, lines 6-10). The segments represent sequential frames of past and further video data associated with the currently playing video. Yeo discloses displaying, simultaneously with a segment of the video, a graphical user interface including information regarding the temporal location of the segment relative to at least one other of the segments of the video

(Figure 1). Yeo discloses displaying to a user at least one selector by which the user may interact with the interactive display to select for viewing selective identified ones of the plurality of segments (column 1, lines 48-52). Yeo discloses receiving user selections of identified ones of the plurality of segments and presenting user selected ones of the plurality of different segments (column 1, lines 48-57). Selecting one segment results in the presentation of that video segment as opposed to another video segment.

Yeo does not disclose a semantic characterization of an event. Tovinkere discloses detecting an event in a video characterized by a semantic event that includes a sports play (column 7, lines 40-43). It would have been obvious to one skilled in the art at the time of the invention to learn from Tovinkere a semantic characterization of an event. Tovinkere discloses that identifying the semantic event of a sports play ensures that the user has access to the most desired data within large amounts of video data. This provides motivation for Tovinkere to learn from Yeo. Therefore one skilled in the art at the time of the invention would have been motivated to learn from Tovinkere a semantic characterization of an event.

Yeo and Tovinkere do not disclose displaying an interactive display of temporal location of the video as a plurality of segments. Moran discloses a graphical user interface with a plurality of segments (Figure 11). The plurality of segments has different visual indications that disclose temporal location for events within a video (Figure 11). These plurality of segments are displayed with different visual indications that are associated with distinct characterizations. These characterizations are each

individually distinguishable when their associated visual indications graphically overlap (Figure 11). For example when the graphical indications display that Adam and Betty are speaking at the same time in the audio data, the visual indications overlap but are distinctly displayed. It would have been obvious to one skilled in the art at the time of the invention to learn from Moran displaying an interactive display of temporal location of the video as a plurality of segments. Yeo discloses a timeline structure with a plurality of segments that visually indicate the different within the segments of the video data. The displaying of this timeline structure would allow the user to determine different types of events with the video data and access these events more easily and efficiently. This provides motivation for Yeo and Tovinkere to learn from Moran. Therefore one skilled in the art at the time of the invention would have been motivated to learn from Moran displaying an interactive display of temporal location of the video as a plurality of segments.

Yeo, Tovinkere and Moran do not disclose displaying in an interactive display the temporal location for a first semantic characterization of an event the video using a first visual indication and displaying the temporal location for a second semantic characterization of an event in the video using a second visual indication different from the first visual indication. Ahmad discloses displaying in an interactive display the temporal location for a first semantic characterization of an event the video using a first visual indication and displaying the temporal location for a second semantic characterization of an event in the video using a second visual indication different from the first visual indication (Figure 2B, column 3, lines 13-16 and lines 28-35). It would

have been obvious to one skilled in the art at the time of the invention to learn from Ahmad displaying in an interactive display the temporal location for a first semantic characterization of an event the video using a first visual indication and displaying the temporal location for a second semantic characterization of an event in the video using a second visual indication different from the first visual indication. Ahmad discloses that providing the visual indications of the video data allows for the user to quickly recognize and access important context data of the video (column 1, lines 39-43). This provides motivation for Yeo, Tovinkere and Moran to learn from Ahmad. One skilled in the art at the time of the invention would have been motivated to learn from Ahmad displaying in an interactive display the temporal location for a first semantic characterization of an event the video using a first visual indication and displaying the temporal location for a second semantic characterization of an event in the video using a second visual indication different from the first visual indication.

Referring to claim 30, Yeo discloses that the graphical user interface includes a generally rectangular region where each of the plurality of segments is indicated within the generally rectangular region (Figure 1).

Referring to claim 31, Yeo discloses that the size of each of the plurality of segments is indicated in a manner such that the plurality of segments with a greater number of frames is larger than the plurality of segments with a lesser number of frames (Figure 7).

Referring to claim 32, Yeo discloses that the size of the regions between each of the plurality of segments is indicated in a manner such that regions between with a

greater number of frames are larger than the plurality of segments with a lesser number of frames (Figure 7).

Referring to claim 33, Yeo, Tovinkere and Moran disclose an indicator that indicates the current position within the temporal information of a currently displayed portion of the video (Moran, column 27, lines 25-29).

Referring to claim 34, Yeo, Tovinkere and Moran disclose that the indicator changes location relative to the temporal information as the portion of the currently displayed portion of video changes (Moran, column 27, lines 35-42).

Referring to claim 36, Yeo, Tovinkere and Moran disclose indicating with an indicator the current position within the temporal information of a currently displayed portion of the video and modifying the position of the indicator within the temporal information which modifies the displayed portion of the video (Moran, column 27, lines 35-42).

Referring to claim 37, Yeo, Tovinkere and Moran disclose that the indicator is modified to a portion of the video that is not included within the plurality of segments (Moran, column 27, and lines 35-42).

Referring to claim 41, Yeo discloses that a user selects a portion of the video not included within the plurality of segments, wherein in response thereto, the system presents one of the plurality of segments (column 1, line 65-column 2, line 1).

Referring to claim 42, Yeo discloses that one of the plurality of segments is the segment most temporally adjacent to the portion of the video (column 1, lines 53-57).

Referring to claim 43, Yeo discloses that one of the plurality of segments is the next temporally related segment (column 2, lines 20-22).

Referring to claim 44, Yeo discloses that one of the plurality of segments is the previous temporally related segment (column 1, lines 53-57).

Referring to claim 45, Yeo discloses that a user selects a portion of the video included within the plurality of segments, wherein in response thereto, the system presents the portion of the video from the start thereof (Figure 1 and column 1, lines 48-52).

Referring to claim 46, Yeo discloses that a user selects a portion of the video not included within the plurality of segments, wherein in response thereto, the system presents one of the plurality of segments, and wherein the user selects a portion of the video included within the plurality of segments, wherein in response thereto, the system presents the portion of the video within the plurality of segments (Figure 1, column 1, lines 48-52 and column 1, line 65-column 2, line 1).

Referring to claim 47, Yeo discloses that a user selects a portion of the video not included within the plurality of segments, wherein in response thereto, the system presents one of the plurality of segments, and wherein the user selects a portion of the video included within the plurality of segments, wherein in response thereto, the system presents the portion of the video within the plurality of segments starting from the beginning thereof (Figure 1, column 1, lines 48-52 and column 1, line 65-column 2, line 1).



Referring to claims 49 and 70, Yeo, Tovinkere and Moran disclose that the temporal information is hierarchical and is displayed in such a manner to retain a portion of its hierarchical structure (Moran, Figure 11).

Referring to claims 50 and 71, Yeo, Tovinkere and Moran disclose that the temporal information relates to overlapping time periods and temporal information is displayed in such a manner to maintain the differentiation of the overlapping time periods (Moran, Figure 11).

Referring to claims 51 and 72, Yeo, Tovinkere and Moran disclose that the temporal information is displayed within a time line, wherein the temporal information is presented in a plurality of layers in a direction perpendicular to the length of the time line (Moran, Figure 11).

Referring to claims 52 and 73, Yeo, Tovinkere and Moran disclose that the temporal information is displayed within a time line, wherein textual information is included within the time line (Moran, Figure 13).

Referring to claims 53 and 74, Yeo, Tovinkere and Moran disclose that the temporal information is displayed within a time line, wherein additional textual information is displayed upon selecting a portion of the time line (Moran, Figure 13).

Referring to claims 54 and 75, Yeo, Tovinkere and Moran disclose that the temporal information is displayed together with a time line, wherein additional textual information is displayed together with selecting a portion of the time line (Moran, Figure 13).

Referring to claims 55 and 76, Yeo, Tovinkere and Moran disclose that the temporal information is displayed within a time line, wherein additional audio annotation is presented upon presenting a portion of the time line (Moran, column 22, lines 1-5).

Referring to claim 56, Yeo discloses a method of presenting information regarding audio identifying a plurality of different segments of the audio, where each of the segments includes a temporal duration of the audio (column 1, lines 45-62). The video information including audio is represented in segments, the segments represent temporal duration including further segments. Yeo discloses displaying simultaneously with the segment of the audio a graphical user interface including information regarding the temporal location of the segment relative to at least one other of the segment of the audio (Figure 1 and column 1, lines 45-62). Yeo discloses displaying to a user at least one selector by which the user may interact with the display to select for listening selective identified ones of the plurality of segments (column 1, lines 46-56), the mouse pointer is the selector. Yeo discloses receiving user-selections of identified ones of the plurality of segments and presenting user-selected ones of the plurality of different segments (column 1, lines 45-55).

Yeo does not disclose a semantic characterization of an event. Tovinkere discloses detecting an event in a video characterized by a semantic event that includes a sports play (column 7, lines 40-43). It would have been obvious to one skilled in the art at the time of the invention to learn from Tovinkere a semantic characterization of an event. Tovinkere discloses that identifying the semantic event of a sports play ensures that the user has access to the most desired data within large amounts of video data.

This provides motivation for Tovinkere to learn from Yeo. Therefore one skilled in the art at the time of the invention would have been motivated to learn from Tovinkere a semantic characterization of an event.

Yeo and Tovinkere do not disclose displaying an interactive display of temporal location of the video as a plurality of segments. Moran discloses a graphical user interface with a plurality of segments (Figure 11). The plurality of segments has different visual indications that disclose temporal location for events within a video (Figure 11). These plurality of segments are displayed with different visual indications that are associated with distinct characterizations. These characterizations are each individually distinguishable when their associated visual indications graphically overlap (Figure 11). For example when the graphical indications display that Adam and Betty are speaking at the same time in the audio data, the visual indications overlap but are distinctly displayed. It would have been obvious to one skilled in the art at the time of the invention to learn from Moran displaying an interactive display of temporal location of the video as a plurality of segments. Yeo discloses a timeline structure with a plurality of segments that visually indicate the different within the segments of the video data. The displaying of this timeline structure would allow the user to determine different types of events with the video data and access these events more easily and efficiently. This provides motivation for Yeo and Tovinkere to learn from Moran. Therefore one skilled in the art at the time of the invention would have been motivated to learn from Moran displaying an interactive display of temporal location of the video as a plurality of segments.

Yeo, Tovinkere and Moran do not disclose displaying in an interactive display the temporal location for a first semantic characterization of an event the video using a first visual indication and displaying the temporal location for a second semantic characterization of an event in the video using a second visual indication different from the first visual indication. Ahmad discloses displaying in an interactive display the temporal location for a first semantic characterization of an event the video using a first visual indication and displaying the temporal location for a second semantic characterization of an event in the video using a second visual indication different from the first visual indication (Figure 2B, column 3, lines 13-16 and lines 28-35). It would have been obvious to one skilled in the art at the time of the invention to learn from Ahmad displaying in an interactive display the temporal location for a first semantic characterization of an event the video using a first visual indication and displaying the temporal location for a second semantic characterization of an event in the video using a second visual indication different from the first visual indication. Ahmad discloses that providing the visual indications of the video data allows for the user to quickly recognize and access important context data of the video (column 1, lines 39-43). This provides motivation for Yeo, Tovinkere and Moran to learn from Ahmad. One skilled in the art at the time of the invention would have been motivated to learn from Ahmad displaying in an interactive display the temporal location for a first semantic characterization of an event the video using a first visual indication and displaying the temporal location for a second semantic characterization of an event in the video using a second visual indication different from the first visual indication.

Referring to claim 58, Yeo, Tovinkere and Moran disclose indicating with an indicator the current position within the temporal information of a currently displayed portion of the audio and modifying the position of the indicator within the temporal information which modifies the displayed portion of the audio (Moran, column 27, lines 35-42).

Referring to claim 59, Yeo, Tovinkere and Moran disclose that the indicator is modified to a portion of the audio that is not included within the plurality of segments (Moran, column 27, lines 35-42).

Referring to claim 60, Yeo, Tovinkere and Moran disclose that at least two of the plurality of segments are temporally overlapping (Moran, Figure 11).

Referring to claim 61, Yeo, Tovinkere and Moran disclose that the temporally overlapping segments are visually indicated in a manner such that each of the overlapping segments are independently identifiable (Moran, Figure 11).

Referring to claim 62, Yeo discloses that a user selects a portion of the audio not included within the plurality of segments, wherein in response thereto, the system presents one of the plurality of segments (column 1, line 65-column 2, line 1).

Referring to claim 63, Yeo discloses that one of the plurality of segments is the segment most temporally adjacent to the portion of the audio (column 1, lines 53-57).

Referring to claim 64, Yeo discloses that one of the plurality of segments is the next temporally related segment (column 2, lines 20-22).

Referring to claim 65, Yeo discloses that one of the plurality of segments is the previous temporally related segment (column 1, lines 53-57).

Referring to claim 66, Yeo discloses that a user selects a portion of the audio included within the plurality of segments, wherein in response thereto, the system presents the portion of the audio from the start thereof (Figure 1 and column 1, lines 48-52).

Referring to claim 67, Yeo discloses that a user selects a portion of the audio not included within the plurality of segments, wherein in response thereto, the system presents on the plurality of segments, wherein in response thereto, the system presents the portion of the audio within the plurality of segments (Figure 1, column 1, lines 48-52 and column 1, line 65-column 2, line 1).

Referring to claim 68, Yeo discloses that a user selects a portion of the audio not included within the plurality of segments, wherein in response thereto, the system presents one of the plurality of segments, and wherein the user selects a portion of the audio included within the plurality of segments, wherein in response thereto, the system presents the portion of the audio within the plurality of segments starting from the beginning thereof (Figure 1, column 1, lines 48-52 and column 1, line 65-column 2, line 1).

Referring to claim 77, Yeo discloses that a user selectable skip function skips a set of frames to a modified location of the video in at least one of a forward temporal direction or a reverse temporal direction, and displays the video at the modified location (column 1, lines 46-57). The user selectable segments represent skip function that allows the user to jump to a modified location of the video.

Referring to claim 78, Yeo discloses that a user selectable skip function skips to a later temporal segment or a previous temporal segment, and displays the video at the later temporal segment or the previous temporal segment, respectively (column 1, lines 46-57).

Referring to claim 79, Yeo discloses that a user selectable scan function skips a set of frames to a modified location of the video in at least one of a forward temporal direction or a reverse temporal direction, and displays the video at the modified location, and thereafter automatically skips another set of frames to another modified location of the video in at least one of the forward temporal direction or the reverse temporal direction, and displays the video at another modified location (column 1, lines 46-57). The segments allow for the user to skip to modified video locations as each segment is selected.

Referring to claim 80, Yeo discloses that at least one of the forward temporal direction and reverse temporal direction are consistent with different segments (column 1, lines 46-57).

Referring to claim 81, Yeo discloses that display of the video is at the start of the respective one of the different segments (column 1, lines 46-57), selecting the different segment allows for the user to view from the beginning.

Referring to claim 82, Yeo discloses that display of the video is at a predetermined offset within the respective one of the different segments (column 1, lines 46-57).

Referring to claim 83, Yeo discloses that the graphical user interface displays a respective image associated with at least a plurality of the different segments (Figure 1).

Referring to claim 84, Yeo, Tovinkere and Moran discloses that respective image associated with the currently presented different segments is visually highlighted (Moran, column 23, lines 45-50).

Referring to claim 85, Yeo, Tovinkere and Moran discloses that during presentation of the video the visually highlighted respective images are highlighted in a substantially regular interval while the sequence of presentation of the video is at substantially irregular intervals (Moran, column 23, lines 45-50).

Referring to claim 86, Yeo discloses that the presentation of the different segments may be modified by a plurality of different functions, and wherein the user may customize another function, not previously explicitly provided, by combining a plurality of the plurality of different functions into a single function (column 1, lines 45-65).

***Allowable Subject Matter***

3. Claims 21, 48 and 69 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. The following is a statement of reasons for the indication of allowable subject matter: With respect to independent claims 21, 48, 69 and independent claim 87, the combination of Yeo, Tovinkere and Moran disclose summarizing video data into frames and displaying this data. There are plurality of segments that are displayed based on



distinct events that are associated with sports plays. Prior art combinations do not properly teach the a distinct pattern where in response to the user selecting a portion of the video not included within the plurality of segments, the portion not included in the segments is displayed. Furthermore, after this displaying the system goes back to displaying only the segments in temporal order without the portions of the video not included within the segments. Prior arts disclosed do not disclose in addition to the features of the independent claims in combination with the features of claims 21, 48 and 69.

5. Claim 87 is allowed.

***Response to Arguments***

6. Applicant's arguments filed 4/28/10 have been fully considered but they are not persuasive.

Yeo discloses bounded spatial regions that are of varying sizes. These varying sizes are based on the amount of data that is included in this video data including the number of frames. Therefore the varying size of video data that is in the bounded spatial region is based on the number of sequential frames included.

Both Moran and Ahmad discloses display multiple visual indications to display data in a video that are based on distinct events. The data is displayed so that the different visual indications are each distinguishable when their associated visual indications graphically overlap. Moran clearly conveys this through Figure 11 where different visual indications of an events on an audio data are each distinguishable when their associated visual indications graphically overlap.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Responses to this action should be submitted as per the options cited below: The United States Patent and Trademark Office requires most patent related correspondence to be: a) faxed to the Central Fax number (571-273-8300) b) hand carried or delivered to the Customer Service Window (located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), c) mailed to the mailing address set forth in 37 CFR 1.1 (e.g., P.O. Box 1450, Alexandria, VA 22313-1450), or d) transmitted to the Office using the Office's Electronic Filing System.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Namitha Pillai whose telephone number is (571) 272-4054. The examiner can normally be reached from 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, Kieu Vu can be reached on (571) 272-4057.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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July 15, 2010

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Application/Control Number: 10/016,941

Page 27

Art Unit: 2173

Primary Examiner, Art Unit 2173